

WHAT IS CLAIMED IS:

1. The combination of:

(a) a feeding tube, said feeding including a longitudinally-extending bore and an open proximal end, and

(b) a device for monitoring the administration of enteral nutritional fluids into the open proximal end of said feeding tube, said device comprising,

(i) a casing coupled to the open proximal end of said feeding tube, said casing being shaped to define a lumen in fluid communication with the longitudinally-extending bore of said feeding tube, said lumen including an inlet and an outlet, and

(ii) an electronic control circuit mounted within said casing.

2. The combination as claimed in claim 1 wherein said device for monitoring the administration of enteral nutritional fluids further comprises a metering device in electrical connection with said control circuit.

3. The combination as claimed in claim 2 wherein said metering device is coupled to said casing.

4. The combination as claimed in claim 3 wherein said metering device is positioned within the lumen.

5. The combination as claimed in claim 4 wherein said metering device includes a pressure-sensitive material which generates an electrical signal in response to fluid passing through the lumen.

6. The combination as claimed in claim 5 wherein said control circuit, in response to receiving an electrical signal from said metering device, calculates the amount of fluid which passes through the lumen.

7. The combination as claimed in claim 5 wherein said control circuit, in response to receiving an electrical signal from said metering device, calculates the rate in which fluid passes through the lumen.

8. The combination as claimed in claim 1 wherein said control circuit has time monitoring capabilities.

9. The combination as claimed in claim 8 wherein said control circuit comprises a microprocessor and a clock.

10. The combination as claimed in claim 1 wherein said casing includes a lower housing and an upper housing which are pivotally connected together about a hinge.

11. The combination as claimed in claim 10 wherein said upper housing can be pivoted relative to said lower housing between an open position and a closed position.

12. The combination as claimed in claim 11 wherein said casing includes a tube connector which is coupled to the open proximal end of said gastrostomy feeding tube.

13. The combination as claimed in claim 12 wherein said tube connector is shaped to include at least one outwardly projecting barb.

14. The combination as claimed in claim 11 wherein said casing comprises a protrusion which fittingly projects into the inlet of said lumen when said upper housing is disposed in its closed position.

15. The combination as claimed in claim 11 wherein said casing is provided with a locking member for releasably retaining the upper housing in its closed position.

16. The combination as claimed in claim 11 wherein said device for monitoring the administration of enteral nutritional fluids further comprises a pressure sensor in electrical connection with said control circuit.

17. The combination as claimed in claim 16 wherein said pressure sensor is fixedly mounted to said casing.

18. The combination as claimed in claim 17 wherein said pressure sensor generates an electrical signal when said upper housing is disposed in its closed position

19. The combination as claimed in claim 1 wherein said device for monitoring the administration of enteral nutritional fluids further comprises an externally-visible display in electrical connection with said control circuit.

20. The combination as claimed in claim 1 wherein said device for monitoring the administration of enteral nutritional fluids further comprises at least one externally accessible user input device in electrical connection with said control circuit.

21. The combination as claimed in claim 1 wherein said device for monitoring the administration of enteral nutritional fluids further comprises an alarm in electrical connection with said control circuit.

22. The combination as claimed in claim 1 wherein said feeding tube is a gastrostomy feeding tube.

23. A device for monitoring the administration of enteral nutritional fluids into the open proximal end of a feeding tube, said feeding tube including a longitudinally-extending bore and an open proximal end, said device comprising:

(a) a casing shaped to define a lumen, said lumen including an inlet and an outlet, said casing being adapted to be coupled to the open proximal end of said feeding tube such that the lumen is in fluid communication with the longitudinally-extending bore, and

(ii) an electronic control circuit mounted within said casing.

24. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 23 further comprising a metering device in electrical connection with said control circuit.

25. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 24 wherein said metering device is coupled to said casing.

26. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 25 wherein said metering device is positioned within the lumen.

27. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 26 wherein said metering device includes a pressure-sensitive material which generates an electrical signal in response to fluid passing through the lumen.

28. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 27 wherein said control circuit, in response to receiving an electrical signal from said metering device, calculates the amount of fluid which passes through the lumen.

29. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 27 wherein said control circuit, in response to receiving an electrical signal from said metering device, calculates the rate in which fluid passes through the lumen.

30. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 23 wherein said control circuit has time monitoring capabilities.

31. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 30 wherein said control circuit comprises a microprocessor and a clock.

32. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 23 wherein said casing includes a lower housing and an upper housing which are pivotally connected together about a hinge.

33. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 32 wherein said upper housing can be pivoted relative to said lower housing between an open position and a closed position.

34. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 33 wherein said casing includes a tube connector which is adapted to be coupled to the open proximal end of said gastrostomy feeding tube.

35. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 34 wherein said tube connector is shaped to include at least one outwardly projecting barb.

36. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 33 wherein said casing comprises a protrusion which fittingly projects into the inlet of said lumen when said upper housing is disposed in its closed position.

37. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 33 wherein said casing is provided with a locking member for releasably retaining the upper housing in its closed position.

38. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 33 wherein said device for monitoring the administration of enteral nutritional fluids further comprises a pressure sensor in electrical connection with said control circuit.

39. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 38 wherein said pressure sensor is fixedly mounted to said casing.

40. The device for monitoring the administration of enteral nutritional fluids as claimed in claim 39 wherein said pressure sensor generates an electrical signal when said upper housing is disposed in its closed position